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Abstract

Digital stereo demultiplexer

In a stereo demultiplexer receiving a frequency demodulated stereo-multiplex signal (m(t)) which comprises at least a stereo-difference signal ($m_d(t)$), a stereo-sum signal ($m_s(t)$) and a pilot carrier, a PLL-circuit (4) to recover the pilot carrier and/or at least one harmonic thereof receives the sampling rate decimated stereo-sum signal ($m_s(t)$) as input signal, which is sampling rate decimated by a decimation factor of D. Therefore, the sampling rate decimation filter in the sum path is used for the sampling rate decimation to generate the 2nd harmonic or any other harmonic of the pilot carrier. This sampling rate decimation filter is available anyway and therefore the sampling rate decimation of the pilot carrier can be performed without an additional filter.

(Fig. 1)